

INCH-POUND

MIL-DTL-3943G
12 August 2020
SUPERSEDING
MIL-DTL-3943F
23 January 2020

DETAIL SPECIFICATION

DECORATIONS AND MEDALS, GENERAL SPECIFICATION FOR

This specification is approved for use by all
Departments and agencies of the Department of Defense

1. SCOPE

1.1 Scope. This specification covers the requirements for decorations and medals awarded by the Department of Defense and other Government Agencies (See 6.1).

1.2 Classification. Decorations and medals covered by this specification will be as specified on the applicable military specification sheet (See 2.2.1 and 6.2).

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in section 3, and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specification, standard and handbooks. The following specifications, standards and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents cited in the solicitation or contract.

Comments, suggestions, or questions on this document should be addressed to The Institute of Heraldry, ATTN: Technical and Production Division, 9325 Gunston Road, Room S-108, Fort Belvoir, VA 22060-5579 or email to usarmy.belvoir.hqda.mil.tioh-webmaster@mail.mil. You may verify the currency of this specification using the ASSIST Online database at <https://assist.dla.mil>.

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COMMERCIAL ITEM DESCRIPTIONS

A-A-52094 – Thread, Cotton

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-S-3951 - Service Ribbons and Bars, Service Ribbons

MIL-DTL-11589 - Ribbon, Awards, General Specification

MIL-C-14633 - Cases Decoration, Presentation

MIL-DTL-11484 - Lapel Buttons

SPECIFICATION SHEETS

(See Supplement 1 for list of specification sheets.)

(Copies of these documents are available online at <https://quicksearch.dla.mil>).

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

STANDARD CHIP SETS

THE INSTITUTE OF HERALDRY

Standard Hard Enamel Color Chip Set

DoD Standard Metal Finish Chip Set

DRAWINGS

THE INSTITUTE OF HERALDRY

4-4-86 - Pendant Ribbon Bars, Regular and Miniature, Assembly and Details

4-4-91 - Service Ribbons and Service Ribbon Bars, Assembly and Details

B-6-9 - Box Pleated Ribbon Drapes for Decorations and Medals

B-13-5 - Attaching Device, Heraldic, Pin and Catch Type

B-13-12 – Attaching Device, Heraldic, Prong and Clutch Type

(Copies of standards, drawings and Chip sets are available from The Institute of Heraldry, ATTN: Technical and Production Division, 9325 Gunston Road, Room S-108, Fort Belvoir, VA 22060-5579 or usarmy.belvoir.hqda.mil.tioh-webmaster@mail.mil.)

(Figures 1, 2, 3, 4, and 5 are miniature reproductions of the referenced drawings and are attached for information only.)

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents are those cited in the solicitation or contract.

ASTM INTERNATIONAL

ASTM B568 - Standard Test Method for Measurement of Coating Thickness by X-Ray Spectrometry

ASTM D-2240 - Standard Test Method for Rubber Property – Durometer Hardness

(Copies for these documents are available online at <https://www.astm.org>)

ASTM INTERNATIONAL

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ANSI/ASQ Z1.4 - Sampling Procedures and Tables for Inspection by Attributes

(Copies for these document are available online at <https://acq.org>)

SAE INTERNATIONAL

SAE-AMS-STD-595 - Colors Used in Government Procurement

(Copies for these document are available online at <https://sae.org>)

AMERICAN AND EFIRD, LLC

DoD Standard Shades for Heraldic Yarns, 2012 Edition

(Copies for these document are available online at www.salesRA@amefird.com)

2.4 Order of precedence. Unless otherwise noted herein or in the contract. In the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Tools. Is the generic name used to describe the government furnished hub or die.

3.1.1 Specification sheets. The individual item requirements shall be as specified herein and in accordance with the applicable specification sheets. In the event of any conflict between the requirements of this specification and the specification sheets, the latter shall govern. The design of the decoration or medal shown on the specification sheet is for illustrative purposes only. The design shall be controlled by the Government furnished tools (See 3.5).

3.2 First article. When specified (see 6.2) a sample shall be subjected to first article inspection (see 6.5) in accordance with 4.3.

3.3 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmental preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

3.4 Materials. Materials shall be as specified herein.

3.4.1 Copper base alloy. The copper base alloy shall be roll polished, free from pits, scale (including red oxide), dents, nicks, cracks, scratches, segregation, and foreign inclusions that cannot be removed in later processing. When tested as specified in 4.5.1, the chemical composition of the copper content of the copper base alloy shall be as specified in Table I.

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TABLE I. Unified Numbering System and Copper content of copper base alloys.

UNS ALLOY NUMBER	ALLOY NAME	COPPER
C210	Gilding Metal	94.0%-96.0%
C220	Bronze	89.0%-91.0%
C230	Red Brass	84.0%-86.0%
C240	Low Brass	78.5%-81.5%
C268	Yellow Brass	64.0%-68.5%
C280	Free Cutting Brass	59.0%-63.0%
C745	Nickel Brass	63.0%-66.5%
C752	Nickel Silver (65-18)	63.0%-66.5% 2/
C770	Nickel Silver (55-18)	53.5%-56.5% 1/

1/ Copper content for the nickel silver pin only may be 53.5% to 56.5% (C770).

2/ When nickel silver is used as a base material, the nickel content shall be not less than 18% (C752).

3.4.2 Gold.

3.4.2.1 Gold alloy. When gold alloy is specified as a material of construction, the alloy shall be of the karat quality specified on the applicable specification sheet

3.4.2.3 Gold for plating. Gold for plating shall be 24 karat.

3.4.3 Silver.

3.4.3.1 Sterling silver. Sterling silver shall be not less than 92.5% pure silver.

3.4.3.1.1 Fine silver. Silver shall be no less than 99% pure silver.

3.4.3.3 Silver alloy. Silver alloy when specified as a material of construction shall be of the fineness specified on the applicable specification sheet.

3.4.3.4 Silver for plating. Silver for plating shall be not less than 99.0% pure silver. .

3.4.4 Nickel for plating. Nickel for plating shall be the nickel plating normally used in commercial practice.

3.4.5 Solder.

3.4.5.1 Soft solder. Soft solder shall be a lead-tin alloy having a melting point of not less than 375 °F (190.55 °C).

3.4.5.2 Hard solder. Hard solder shall be a silver colored hard solder having a melting point of not less than 1075 °F (579.44 °C).

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3.4.5.3 Gold solder. Gold solder shall be a gold colored hard solder having a melting point of not less than 1075 °F (579.44 °C).

3.4.6 Enamel. All enamel shall be lead free.

3.4.6.1 Epoxy resin (stoning epoxy). Epoxy resin shall be a stoning epoxy pigmented to produce the required color, opacity or translucence, shade incorporating an ultraviolet inhibitor and have a shore D hardness of 77.

3.4.6.2 Hard enamel. Hard enamel shall be a glass, vitreous type enamel fused with metallic oxides to produce the required color, opacity or translucence, and shade.

3.4.6.3 Soft enamel. Soft enamel shall be a soft baking enamel pigmented to produce the required color and shade.

3.4.7 Lacquer. Lacquer shall be a semi-gloss, clear, synthetic lacquer. The use of a pigmented lacquer shall not be permitted.

3.4.8 Ribbon. Ribbon shall conform to MIL-DTL-11589 (see 6.2). The ribbon shall be draped so that it appears on the drape from left to right in the same color sequence as listed from top to bottom on the applicable specification sheet.

3.4.9 Thread. The color of the thread shall match the color of the area of the ribbon to be sewn on or tacked. Yarns used for embroidery shall match the Department of Defense Standard Shades for Heraldic Yarns, 2012 Edition.

3.4.10 Snap fastener. Snap fastener for the neck ribbon shall be commercial sew-on type size 2/0. The snap fastener shall be fabricated from brass and shall be nickel plated.

3.4.11 Plastic. The plastic used for the insert of the Purple Heart and the Distinguished Service Medal (Air Force) shall be methacrylate plastic and shall have a uniform color. The plastic shall be heat-treated to eliminate residual stresses.

3.4.12 Cement. Cement shall be a cement normally used in commercial practices.

3.4.13 Service ribbons. Service ribbons for assembly to decorations for Unit Award or Citations shall be as specified (See 6.2) in accordance with MIL-S-3951.

3.4.14 Diamond. When a diamond is required, the diamond shall be of the karat specified in the applicable specification sheet and shall meet the requirements specified herein. All diamonds of more than 0.05 karats shall be brilliant cut (58 facets), with a table percentage of 52-67% of the girdle diameter and a depth percentage of 56-63% of the girdle diameter.

3.5 Design. The embossed design of each decoration or medal pendant and when applicable, suspension bar, shall be an exact duplicate of the design of the Government loaned tools (See 6.3), from which the contractor's working die shall be extracted. The contractor's working die shall be tooled and polished to remove any dents, nicks, scratches, or other imperfections.

3.6 Construction.

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3.6.1 Stamping, trimming, and piercing. Each decoration or medal shall have a well defined die struck edge. The decoration or medal shall be trimmed and, when applicable, pierced to the die struck edge. All edges shall be clean, smooth, and free from burrs, drag, step, and rough edges. The stamping, piercing, and trimming operations shall not damage or distort the design or alter the shape of the item.

3.6.2 Hard soldering and electronic fusion. Unless otherwise specified on the applicable specification sheet, all soldering shall be accomplished using hard solder specified in 3.4.5.2 or by electronic fusion. Joints shall be clean, smooth, strong, and free from burned or reduced areas. There shall be no excess solder and all excess flux shall be removed. When hard solder is used, the soldered parts or prongs shall not separate at the joint when tested as specified in 4.5.3.1. When fused joints are used, the prong shall not separate at the joint when tested as specified in 4.5.4.

3.6.3 Soft soldering. When soft solder is specified, soft solder specified in 3.4.5.1 shall be used. Complete contact shall be made between the soldered parts. When tested as specified in 4.5.3.2, the soldered part shall not separate at the joint.

3.6.4 Sewing or tacking. All sewing or tacking shall be neatly and securely accomplished using thread specified in 3.4.9. For straight draped pendant ribbons, the ribbon shall be folded over at each end and joined together by machine stitching across the entire width of the ribbon at the ribbon bar.

3.6.5 Cementing. The plastic insert shall be securely cemented to the pendant using cement specified in 3.4.12. There shall be no excess cement on the face of the plastic insert or on the pendant.

3.7 Detail of components.

3.7.1 Pendant ribbon. Pendant ribbons shall be fabricated from ribbon specified in 3.4.8.

3.7.1.1 Box pleating and straight draping. Unless otherwise specified on the applicable specification sheet, all ribbons shall be box pleated. Both selvage edges of the front face of the ribbon shall be visible throughout the entire length of the pendant ribbon. The back face of the ribbon shall be completely covered when the decoration is viewed from either the obverse or reverse. The dimensions for the box pleating shall be as specified in TIOH Drawing B-6-9 (Figure 2).

3.7.2 Ribbon length. Unless otherwise specified on the applicable specification sheet, the ribbon length of all regular size decorations and medals shall be 1-3/8 inch + 1/16 inch - 0. Miniature size decorations and medals shall be adjusted so the overall length (including pendant) is 2-1/4 inch + 1/16 inch - 0. See TIOH Drawing B-6-9 (Figure 2).

3.7.3 Pendant ribbon drape rings. Unless otherwise specified on the applicable specification sheet, drape rings shall be fabricated from No. 2 hard wire of the same material as the pendant. The - rings shall be matte finish and lacquered. For those decorations or medals with a gold or silver plated pendant, the drape rings shall match the pendant finish. Unless otherwise specified, the drape ring for regular size decorations or medals shall be fabricated from 0.050 inch \pm 0.002 inch diameter wire and shall have an outside diameter of 1/2 inch \pm 1/64 inch. Unless otherwise specified, the drape ring for

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miniature size decorations or medals shall be fabricated from 0.036 inch \pm 0.002 inch diameter wire and shall have an outside diameter of 5/16 inch \pm 1/64 inch. The ends of the rings shall be together and in line.

3.7.4 Integral lugs. Unless otherwise specified on the applicable specification sheet, the lug shall be an integral part of the pendant. When the hubs furnished by the Government do not contain an integral lug, the contractor shall machine the lug in their obverse and reverse working dies. The lug for regular size decorations or medals shall be 5/32 inch \pm 1/16 inch in width, height, and thickness. The lug for the miniature size decorations or medals shall be 5/64 inch \pm 1/64 - 1/32 inch in width, height, and thickness. A hole shall be drilled in the center of the lug parallel with the obverse and reverse faces of the medal. The hole shall be 0.078 inch \pm 0.005 inch for regular size decorations or medals and 0.052 inch \pm 0.005 inch for miniature size decorations or medals.

3.7.5 Neck ribbon. The neck ribbon shall be fabricated from ribbon specified in 3.4.8 and shall conform to the applicable specification sheet and the requirements specified herein. When assembly to the pendant is completed, only the front face of the ribbon shall be visible. Closure of the neck ribbon shall be effected by means of three snap fasteners specified in 3.4.10, which shall be located as specified on Figures 6, 7, 8, or 9.

3.7.5.1 Medal of Honor. The neck ribbon (excluding the shield) for the Medal of Honor shall be fabricated from one continuous piece of ribbon folded and stitched to maintain the required 120 degree angle as shown on Figure 7. The triangular pocket formed shall be pressed flat and the corner formed by the pocket turned up to clear the loops of the attaching device and pressed flat. The shield shall be made from one piece of ribbon formed and stitched around a shield stiffener of light blue, 2 ply bristol board. The stiffener shall be cut to suit the dimensions of the shield. After the shield has been completely fabricated, the pendant attaching device shall be securely stitched to the neck ribbon. The middle prong of the attaching device shall be removed prior to assembly of the neck ribbon for the Air Force Medal of Honor, and the two outer prongs of the attaching device shall be removed prior to the assembly of the neck ribbon for the Army Medal of Honor and the Navy Medal of Honor (Figures 6 and 7).

3.7.5.2 The President's Award for Distinguished Federal Civilian Service. The neck ribbon for the President's Award for Distinguished Federal Civilian Service shall be fabricated from one continuous piece of ribbon (excluding the shield), folded and stitched to maintain the required 120 degree angle as shown on Figure 8. The triangular pocket shall be pressed down and a hole pierced in the back side to insert the ribbon hook. The ribbon hook shall then be inserted and hand stitched in place. The point corner of the pocket shall be turned up 1/4 inch and pressed flat. The shield shall be fabricated from a flattened band of ribbon with the corners stitched to the dimensions shown and turned under to conceal the stitches. The stiffener shall then be inserted and the open ends butted and closed by stitching. The stiffener shall be formed from a hard fiber composition 1-1/4 inches wide by 2 inches high by 0.025 inch thick with the corners trimmed to suit the shield. The shield shall be assembled to the neck ribbon by passing the neck ribbon through the shield behind the stiffener, piercing a hole in the back of the shield for the ribbon hook, and hand stitching the neck ribbon to the back of the shield. The area around the pierced hole shall be stitched to prevent raveling.

3.7.6 Attaching device. Unless otherwise specified on the applicable specification sheet, the attaching device for regular size decorations and medals shall be pin and catch type (Figure

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4). Unless otherwise specified, the attaching device for miniature size decorations and medals shall be one prong and wing-type clutch (Figures 1 and 5).

3.7.6.1 Pin and catch type. Pin and catch type attaching devices shall conform to TIOH Drawing B-13-5 (Figure 4) and be fabricated from nickel silver specified in 3.4.1 when the joint is not punch formed. The joint and safety catch shall be soldered or electronically fused to the back of the item. The rotor of the catch shall remain well seated, have a close sliding fit, and the joint shall remain firmly closed. The pin shall extend not less than 1/32 inch beyond the rotor of the catch and not more than 1/32 beyond the catch. When tested as specified in 4.5.6, the pin, joint, and catch shall show no indication of looseness, and the rotor of the safety catch shall remain well seated and have a close sliding fit.

3.7.6.2 Prong and clutch type clutch. Prongs shall be made from nickel silver or brass specified in 3.4.1. Unless otherwise specified on the applicable specification sheet, the prongs as shown on TIOH Drawing B-13-12 (Figure 5) shall be 5/16 inch \pm 1/64 inch long. The prongs shall be driven, swedged, hard soldered, or electronically fused in the locations specified on TIOH Drawing 4-4-91 (Figure 3). Wing-type clutches as shown on TIOH Drawing B-13-12 (Figure 5) shall be made from any type brass. When clutches are tested as specified in 4.5.7, it shall not be possible to remove the clutch from the prong without first depressing the release wings.

3.7.7 Pendant ribbon bars. Unless otherwise specified on the applicable specification sheet, all decoration and medal pendant ribbon bars shall be Type I bars with back strip as shown on TIOH Drawing 4-4-86 (Figure 1). The bar assembly shall be made from any type brass.

3.7.8 Dimensions. All dimensions shall be as indicated. When referenced dimensions are given, these dimensions are furnished as information for bidding purposes only. The actual dimensions shall be controlled by the Government loaned hub. The reference diameter and thickness of the pendant do not include the lug unless otherwise specified.

3.8 Finish. Decorations and medals shall be finished as specified on the applicable specification sheet. Where plating or oxidizing is specified, the entire item (front, back, and edges) shall be plated or oxidized as applicable. In addition to the finish specified on the specification sheets, all gold plated with a matte finish or matte finish with polished highlights, all silver plated, unplated red brass, gilding metal or bronze decorations and medals shall be completely coated with lacquer specified in 3.4.7.

3.8.1 Enameling. Unless otherwise specified on the applicable specification sheet, all enameling shall be accomplished using epoxy specified in 3.4.6.1 or hard enamel specified in 3.4.6.2. Epoxy or enamel shall be applied so as to be uniform in color, free from bubbles, foreign inclusions, cracking, crazing, or other defects which might affect appearance. There shall be no over-running of epoxy or enamel.

3.8.1.1 Colors. Epoxy or enamel colors shall match the shades of The Institute of Heraldry hard enamel color chips specified on the applicable specification sheet.

3.8.1.2 Epoxy resin. Epoxy resin specified in 3.4.6.1 shall be applied so as to be uniform in color, free from bubbles, foreign inclusion, or other defects which affect appearance. There shall be no overrunning of epoxy. Unless otherwise specified the epoxy shall be stoned level with the dike lines and polished to produce a glass like finish.

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No design elements shall be removed during the stoning process. When tested as specified in 4.5.4, the epoxy shall have a shore D hardness of not less than 77.

3.8.1.3 Hard enameling. Hard enamel specified in 3.4.6.2 shall be charged, fired, and unless otherwise specified, stoned level with the dikes. No design elements shall be removed during the stoning process. There shall be no noticeable burn spots as a result of the firing. The hard enamel shall then be polished to produce a glass like finish. The finish shall be adherent and free from bubbles, pits, foreign inclusions, cracking, crazing, burned edges, or darkened enamel. There shall be no overrunning of enamel.

3.8.1.4 Soft enameling. Soft enamel shall be as specified in 3.4.6.3. When tested as specified in 4.5.5, no color shall be transferred to the cotton, and the enameled surface shall remain unaffected except for a slight loss of luster.

3.8.2 Plating. All plating shall be by electroplating methods. Plating shall be non-porous and continuous over the entire plated surface. There shall be no cut-through, shaded, peeled, or blistered plating. The plating shall be smooth, fine grained, adherent and free from pits, nodules, porosity, indications of burning, excessive edge build up, and other detrimental defects. Unless otherwise specified, the plating of attaching devices is not required.

3.8.2.1 Gold plating. Gold plating shall be accomplished using gold specified in 3.4.2.3. The Gold plating shall not be less than 0.000025 inch thick. Prior to gold plating, a nickel under plating shall be applied as an undercoating as specified in 3.8.2.3. Testing shall be standard commercial. In case of a dispute, testing shall be in accordance with ASTM B568.

3.8.2.2 Nickel plating. Nickel plating shall be accomplished using nickel specified in 3.4.4. The nickel plating shall be not less than 0.0003 inch thick. Testing shall be standard commercial. In case of a dispute, testing shall be in accordance with ASTM B568.

3.8.2.3 Nickel under plating. When nickel under plating is specified on the applicable specification sheet, nickel specified in 3.4.4 shall be used. The under plating shall not be less than 0.00025 inch. Testing shall be standard commercial. In case of a dispute, testing shall be in accordance with ASTM B568.

3.8.2.4 Silver plating. Silver plating shall be accomplished using silver specified in 3.4.3. After finishing, the silver plating shall not be less than 0.0003 inch thick on the obverse side. Prior to silver plating, a nickel under plating shall be applied as an undercoating as specified in 3.8.2.3. When the base material of the decoration or medal to be plated is silver filled, the manufacturer at their option, may underplate with a flash of nickel to facilitate silver plating. Testing shall be standard commercial. In case of a dispute, testing shall be in accordance with ASTM B568-98.

3.8.3 Cutting down. When necessary to remove nicks, scratches, pin holes, or other blemishes, the decoration or medal shall not be cut down to the extent that any details of the design are obliterated or reduced.

3.8.4 Lacquering. Unless otherwise specified, all metal parts and attaching devices shall be thoroughly coated with lacquer specified in 3.4.7. Gold plated parts that have a matte finish or matte finish with polished highlights will be lacquered. The dry lacquer film

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shall be hard, continuous, level, adherent, and free from lint, dust, and other foreign inclusions. When tested as specified in 4.5.8, the tissue paper shall not adhere to the clear lacquered surface. Pendant ribbon rings shall be tested prior to assembly with the pendant and pendant ribbon.

3.9 Presentation packaging of decorations and medals.

3.9.1 Presentation packaging of decorations.

3.9.1.1 Packaging of decoration sets. Cases for decoration sets shall conform to MIL-C-14633. The type case used shall be as specified in the applicable specification sheet. Required components shall be mounted in the appropriate location on the presentation pad within the case. All prongs shall be pushed through the pad and clutches attached to the prongs on the reverse side of the pad. For pads class 1, 2, 3, 4, and 5 two polyurethane pads, 3 inches square by 1/4 inch thick shall be placed one over and one under the pendant. The pad may be any color provided the pad shows good color fastness to wet and dry crocking. The case shall then be closed and a one inch snug fitting paperboard band shall be placed around the width of the case. Each case so prepared shall be placed in a snug-fitting set up paperboard box conforming to Variety I, Style II, Type D of PPP-B-566 (closure shall be in accordance with the appendix of the box specification).

3.9.1.2 Packaging of individual decorations. Each decoration shall be mounted on a box pad and packaged in a manila envelope approximately 4-1/2 inches in length by 2-1/2 inch in width. The mounting pad shall be fabricated from white sulfite board 0.030 inch in thickness (minimum). The pad shall have a slot to accommodate the ribbon bar and three slits formed into a triangular shape to accommodate the pendant. The face side may be covered with plush.

3.9.2 Presentation packaging of medals.

3.9.2.1 Packaging of medal sets. Unless requisition documents state otherwise, medal sets shall consist of regular size medal and a service ribbon. Each medal and service ribbon shall be mounted on a box pad, heat sealed in a snug-fitting transparent polyethylene film 0.002 inch minimum thickness and packaged in a folding box conforming to Variety 1, Style II, Grade A, Class 1 of PPP-B-566. The mounting pad shall be fabricated from white sulfite board 0.030 inch minimum thickness. The face side may be covered with plush. The pad shall have a slot to accommodate the service ribbon bar and three slits formed into a triangular shape to accommodate the pendant. Pads shall be approximately 4-3/16 inches in length by 2-1/16 inches in width. Boxes shall be approximately 4-1/4 inches in length by 2-1/8 inches in width by 1/2 inch in depth. The boxes shall be cobalt blue in color with shades as provided by the procuring activity. The cobalt blue color may be printed over a white surface (e.g., bleached manila or a white clay coated news back). Boxes of any other color must be approved by the contracting officer.

3.9.2.2 Packaging of individual medals. Except for Navy medals or unless otherwise specified on the applicable specification sheet, packaging shall be the same as 3.9.2.1 except that no service ribbon is provided.

3.9.2.3 Packaging of individual Navy medals. Each medal shall be mounted on a box pad and packaged in a manila envelope approximately 4-1/2 inches in length by 2-1/2 inches in width. The mounting pad shall be fabricated from white sulfite board 0.030 inch in thickness (minimum). The pad shall have a slot to accommodate the ribbon bar and three

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slits formed into a triangular shape to accommodate the pendant. The face side may be covered with plush. Envelopes shall be stamped or printed with the name of the medal.

3.10 Marking.

3.10.1 Marking for engraving. Decorations are designed to permit engraving of the recipient's name. In the case of the Prisoner of War Medal each unit package shall contain a paper insert with the following: "THE PRISONER OF WAR MEDAL WAS DESIGNED TO PERMIT ENGRAVING OF THE RECIPIENT'S NAME. SHOULD YOU DESIRE TO HAVE THE RECIPIENT'S NAME ENGRAVED ON THE REVERSE SIDE, YOU MAY DO SO AT YOUR EXPENSE. THE GOVERNMENT DOES NOT ENGRAVE SERVICE MEDALS."

3.10.2 Marking for identification. In addition to any precious metal marking required on the decoration or medal or any special marking required by the contract or purchase order (see 6.2), the contractor shall stamp their identification mark and the letters "GI" (for government procurement only) legibly and inconspicuously on the reverse of the ribbon bar or ribbon drape. If the medal does not have a ribbon bar or ribbon drape, the markings shall be stamped inconspicuously on the reverse side or, if possible, on the periphery of the decoration or medal.

3.11 Workmanship. The finished item shall be clean, well made, and shall meet the acceptable quality levels established by this specification.

4. VERIFICATION

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First article inspection (see 4.3).
- b. Conformance inspection (see 4.4).

4.2 Inspection conditions. Unless otherwise specified, all inspection shall be performed in accordance with the test conditions specified in 4.4 and 4.5.

4.3 First article inspection. Inspection and testing of the first article (see 3.2) shall be made of a completely finished item for all provisions of this specification applicable to the end product examination and tests.

4.4 Conformance inspection. Inspection of components and materials shall be in accordance with the subsidiary specifications and drawings. Sampling for inspection shall be performed in accordance with ASQ/ANSI Z1.4.

4.4.1 Testing of components. Inspection shall be performed on components and materials listed in Table II for the test characteristics shown therein. Material listed in Table II may be accepted on a contractor's certificate of compliance for requirements specified in applicable paragraphs of this specification. The government reserves the right to test samples of the gold and silver (without additional charge) to verify the contractor's certification.

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TABLE II. Testing of components.

COMPONENT	CHARACTERISTIC	RQM'T ¶	TEST METHOD	RESULTS REPORTED AS
Cement construction	material identification	3.4.12	standard commercial	nearest 0.1%
Copper base alloy	material identification	3.4.1	4.5.1	nearest 0.1%
Diamond	karat, clarity, color, table percentage, & depth percentage	3.4.14	standard commercial	pass/fail
Enamel (hard)	material identification	3.4.6.1	standard commercial	pass/fail
Enamel (soft)	material identification	3.4.6.3	standard commercial	pass/fail
Epoxy resin	material identification	3.4.6.2	standard commercial	pass/fail
Gold for plating	material identification & karat	3.4.2.3	standard commercial	nearest 0.1%
Gold for construction	karat	3.4.2	standard commercial	nearest 0.1%
Lacquer	material identification	3.4.7	standard commercial	pass/fail
Nickel for plating	material identification	3.4.4	standard commercial	nearest 0.1%
Nickel for plating	not used as undercoating	3.8.2.2	standard commercial	pass/fail
Pendant ribbon, bars, & clips	material identification	3.7.7	standard commercial	pass/fail
Plastic	material identification	3.4.11	standard commercial	pass/fail
Ribbon rings for plating/lacquering	material identification	3.7.3/ 3.8.4	standard commercial	pass/fail
Shield stiffener	material identification, ply or thickness, & temper	3.7.5.1 & 3.7.5.2	standard commercial	pass/fail
Silver, fine	fineness	3.4.3.1.1	standard commercial	nearest 0.1%
Silver, sterling	fineness	3.4.3.1	standard commercial	nearest 0.1%
Silver filled material	fineness	3.4.3.2	standard commercial	nearest 0.1%
Silver for plating	chemical composition	3.4.3.4	standard commercial	nearest 0.1%
Snap fasteners	material identification	3.4.10	standard commercial	pass/fail
Snap fasteners	identification of plating	3.4.10	standard commercial	pass/fail
Solder, hard	material identification	3.6.2	standard commercial	pass/fail
Solder, soft	material identification	3.6.3	standard commercial	pass/fail

4.4.2 In-process inspection. In-process inspection shall be made at any point or during any phase of the manufacturing process to determine whether operations or assemblies are accomplished as specified. The Government reserves the right to exclude from consideration for acceptance any material for which in-process inspection has indicated nonconformance. In-process inspection shall be conducted to see that accomplishment of the following is in accordance with the specification requirements:

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REQUIREMENT, OPERATION, OR ASSEMBLY	CHARACTERISTICS	REQUIREMENT PARAGRAPH
Gold soldering	use of gold solder	3.4.5.3
Soldering	use of soft solder	3.4.5.1
	use of hard solder	3.4.5.2
Nickel plating	used as an underplating	3.8.2.3

4.4.3 Intermediate inspections. Testing of partially fabricated precious metal decorations and medals shall be performed to ensure the weight requirement as specified on the applicable specification sheet has been met. The sample inspection unit shall be 10 pendants with lugs, 10 bars (e.g., Coast Guard Life-Saving Awards), or 10 suspension assemblies (as applicable) prior to assembly of the pendant ribbon or pendant ribbon rings. When a unit does not meet the weight requirement, the lot shall be rejected.

4.4.4 End item inspection.

4.4.4.1 Visual examination of end item. Visual examination of decorations and medals for defect in finish, design, material, construction, workmanship, and marking shall be made using Table III. Examination shall be made at a distance of approximately 16 to 22 inches with illumination equal to average daylight and arranged so as to avoid as much reflected light possible. Defects designated by an asterisk (*) shall be classified as major when seriously affecting appearance or serviceability and minor when affecting appearance or serviceability but not seriously. The product unit for the examinations shall be one completely fabricated decoration or medal. Any dimension which is not within specified tolerance shall be classified as a defect.

TABLE III. DEFECTS.

EXAMINE	DEFECT	CLASSIFICATION		
		MAJOR	(*)	MINOR
Color & Finish	Poor match to the TIOH DoD Standard Metal Finish Chip Set	X		
	The oxidized finish, when required, has not been sufficiently relieved, or has been excessively relieved		*	
	Not highlighted to the same extent as the TIOH Metal Finish Chips Set		*	
	Background or recessed area not finished as specified	X		
	Jump rings and suspension links as applicable are not finished as specified	X		
	Surface contains pits, scale, nick, scratch, crack, machine mark, pin hole, segregation, rupture, foreign matter, or other blemish		*	
	Buff, drag, blushed, or cloudy finish		*	
	Foreign matter embedded			X

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TABLE III. DEFECTS - CONTINUED					
Plating	Discoloration, spot, stain, or speck affecting appearance			*	X
	Not clean				
	Not plated (when required)	X			
	Not type specified	X			
	Plating not smooth, continuous, or adherent	X			
Hard enamel and epoxy	Foreign matter imbedded			*	
	Not nickel under plated when required	X			
	Nickel under plated when not required	X			
	Not enameled (when required)	X			
	Incorrect color or shade	X			
Soft Enamel	Enamel not contained within the prescribed outline of the design	X			
	Cracked, chipped, or crazed			*	
	Bubbles, blisters, holes lumps, or foreign inclusion			*	
	Not stoned smooth (when required), i.e., is coarse, uneven , or has drag marks			*	
	Not level with the dikes, i.e., contains high or low spots			*	
	Not convex within dikes (when required)			*	
	Laps, overruns, or skips			*	
	Burned areas, specking, discoloration, lack of gloss	X		*	
	Not Enameled or area of no enamel				
	Area of thin enamel.....				
Color & finish of plastic insert (as applicable)	Not adherent, i.e., blistered, flaking, or peeling .			*	X
	Foreign matter imbedded			*	
	Discolored			*	
	Coating not continuous and level, i.e., runs, drips, or drops			*	
	Poor match to the standard	X			
Design	Pit, nick, scratch, pin hole, crack, or other blemish			*	
	Not uniform in color			*	
	Surface discolored or not clean, e.g., spot, stain, speck			*	
	Construction or design details do not conform to Government hub	X			
	Not dapped (when required)	X			
	Any significant detail not clear, altered, reduced, distorted, or missing	X			
	Any detail struck over resulting in a double impression	X			

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TABLE III. DEFECTS - CONTINUED				
Workmanship and construction	Any warp, twist or distortion, irregular surface contour, or outline			*
	Any area not pierced (when required)	X		
	Hole in lug is missing or not completely drilled through when applicable	X		
	Lugs not of specified design and type	X		
	Design not as specified	X		
	Any operation not in accordance with the specified requirements, i.e., lug, loop, design is not integral part of the pendant when required; or hole is drilled through the lug in the Purple Heart or the Soldiers' Medal pendant	X		
	Metal marks on exposed surface (such as nick, dent, dig, gouge, or scratch)			*
	Not trimmed to die-struck edge			*
	Design or shape altered by piercing			*
	Any component (including jump rings) missing, twisted, bent out of shape, malformed, or deformed, e.g., swivel bar does not revolve as specified			*
	Not connected or joined as specified or operation is poorly accomplished, e.g., ends of jump rings not closed (when required) or not in alignment or flange of frame tab not securely bent around ribbon clip and bar			*
	Piercing not clean and smooth, e.g., any burrs or cutter, drill, or file marks			*
	Any solder spatter on front exceeding 1/32 inch, exposed, or plated over	X		
	Flux or excess solder not removed			*
	Any area burned or reduced in soldering or acid cleaning			*
	Incorrect type of solder used	X		
	Surface or edge not clean, not smooth or not free from burrs, roughness, drag, step or tool marks			*
	Superimposed design, when applicable, not centered or not positioned on medal as required			*
	Superimposed design is not securely riveted to medal (when applicable), i.e., rivet is loose, poorly or insufficiently peened or swaged	X		
	Superimposed device is missing, loose, or drive rivet results in penetration or deformity of the reverse side	X		

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TABLE III. DEFECTS - CONTINUED				
Lacquer	Riveted design is not closely fitted to the Riveted design is not closely fitted to the decoration			*
	Not lacquered when required	X		
	Areas of no lacquer			*
	Lacquer forms noticeable runs or sharp coarse particles			*
	Foreign matter embedded in finish, e.g., lint, dust, etc.			*
	Hazy, rainbow effect, cloudy, or powdering			*
	Not smooth, continuous, or adherent, e.g. flaking, blistering, or peeling			*
Material	Not set to touch, i.e., tacky when pressure is applied to coating	X		
	Jump rings and suspension links (unless otherwise specified) are not made from wire of the same material as the bar, pendant, or clasp to which assembled	X		
Quality of un- plated metal	Surface pitted, porous, crystalline, spotted, or opened grained	X		
	Pendant ribbons are not box pleated (when required)	X		
Pendant drape sewing (as applicable)	Both selvages of the front of the ribbon at the box pleat are not visible			*
	Back portion of the ribbon is visible at the box pleat			*
	Distorted drape, e.g., creased or improperly pleated			*
	Snap fasteners (when required) inoperative, missing, misplaced, or damaged	X		
	Snap fastener not finished as specified	X		
	Snap fastener not securely attached			*
	Clip or ribbon bar metal is exposed more than 1/32 inch on either side (Type I only)	X		
	Not sewn or not tacked when required	X		
	Sewing or tacking is not neatly or securely accomplished			*
	Color of tacking thread does not match color or sections of the ribbon sewn			*
Ribbon drape assembly	Broken stitch or stitch pattern not as specified ..			*
	Less than the number of stitches or stitches per inch when specified			*
	Not symmetrical			*
	Not accomplished as specified			*
	Any component missing	X		
	Ribbon not tautly stretched over clip face			*

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TABLE III. DEFECTS - CONTINUED				
Diamond (when applicable)	Clip is not correctly clinched over back strip, i.e., too tight or too loose		*	
	Pendant ribbon device positioned incorrectly ...	X		
	Pendant prong of the device missing, loose, broken, or not securely attached to the pendant ribbon	X		
	Not size specified	X		
	Not set as specified	X		
	Girdle not set strictly below the face of the pendant		*	
	Missing	X		
	Not located as specified	X		
	Not color as specified	X		
	Attaching device not specified type, size, or material	X		
Attaching device	Any component missing	X		
	Defective, i.e., any part damaged or malformed affecting use		*	
	Not positioned as specified, or components are off center by 1/8 inch or more		*	
	Pin protrudes less than 1/32 inch beyond the safety catch	X		
	Pin protrudes more than 1/32 inch beyond the safety catch			X
	Clutch does not engage prong, or is loose fit ...	X		
	Prong is loose	X		
	Hinged joint does not operate as required (too tight or too loose)		*	
	Missing, incorrect, illegible, misspelled, not accomplished as specified, or not placed as required		*	
Identification				

4.4.4.2 End item testing. Testing of the completely fabricated decorations and medals shall be performed in accordance with Table IV for the characteristics shown therein. The sample unit shall be one gold plated, one lacquered, one enameled decoration or medal as applicable. The sample unit for the test for hard soldered or fused joints shall be one finished item. All items shall be tested and one defect shall be scored regardless of how many prongs on that item failed. For other than the test for fused prongs, the requirements shall be applicable to the individual unit. Individual tests are detailed in 4.5.

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TABLE IV. Testing of end item.

CHARACTERISTIC	RQM'T	TEST METHOD	RESULTS REPORTED AS
Test for copper content	3.4.1	4.5.1	pass/fail
Tests for plating			
Nickel plating			
Nickel under plating	3.4.4	standard commercial	pass/fail
with gold plating	3.8.2.1	standard commercial	
Nickel under plating			
Silver plating	3.8.2.3	standard commercial	pass/fail
thickness	3.8.2.4	standard commercial	pass/fail
Gold plating	3.8.2.1	standard commercial	pass/fail
Test for lacquer:	3.8.4	4.5.8	pass/fail
Tests for joints:			
Soldered joints	3.6.2	4.5.3	pass/fail
Electronically fused joints	3.6.2	4.5.4	pass/fail
Tests for attaching devices:			
Pin joint and safety catch	3.7.6.2	4.5.7	pass/fail
Prong and clutch	3.7.6.1	4.5.8	pass/fail
Tests for enamels:			
Epoxy resin	3.8.1.3	4.5.5	pass/fail
Soft enameling	3.8.1.4	4.5.6	pass/fail

4.5 End item tests.

4.5.1 Copper content test for copper base alloy. Copper content shall be determined by standard commercial testing. Results shall be evaluated to determine compliance with the requirements specified in 3.4.1.

4.5.2 Test for soldered joints.

4.5.2.1 Hard solder. Hard soldered items shall be placed in an oven maintained at 1075 ± 5 °F for 15 minutes. While at this temperature the item shall be lifted by the attaching device and shall be inspected to determine compliance with the requirements specified in 3.6.2.

4.5.2.2 Soft solder. Soft soldered items shall be placed in an oven maintained at 365 ± 5 °F for 15 minutes. While at this temperature the item shall be lifted by the superimposed design and shall be inspected to determine compliance with the requirements specified in 3.6.3.

4.5.3 Test for electronically fused joints. Item to be tested shall be anchored on a horizontal surface. Each prong shall be grasped at least 1/3 its length above the fused joint and bent through an angle of 90 degrees (45 degrees to each side of the vertical) until the prong breaks. The fused joint shall then be examined to determine compliance with 3.6.2.

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A bending tool in the form of a 45 degree template may be used for this test provided the prong is gripped at least 1/3 its length above the fused joint.

4.5.4 Test for shore hardness of epoxy resin. Shore hardness shall be determined in accordance with ASTM D-2240. Results shall be evaluated to determine compliance with the requirements of 3.8.1.2.

4.5.5 Acetone test for soft enamel. The enameled surface shall be wiped five times with a piece of cotton saturated with acetone. The cotton and enamel shall then be examined to determine compliance with 3.8.1.4.

4.5.6 Test for pins, joints, and safety catches. Safety catches and pins shall be opened and closed ten times, after which the pins, joints, and safety catches shall be inspected to determine compliance with the requirements specified in 3.7.6.1.

4.5.7 Test for clutch type attaching device. The clutches shall be removed and replaced ten times from the prong using the clutch release mechanism. An attempt shall then be made to remove the clutch by hand without first depressing the release mechanism or pulling out on the back. An inspection shall be made at this time of the clutch to determine compliance with the requirements specified in 3.7.6.2.

4.5.8 Test for lacquer. At room temperature (60 to 80 °F), press a piece of tissue paper against the lacquered surface for 15 seconds, using any pressure capable of being exerted between thumb and two fingers, after which the pressure shall be released and the item inspected to determine compliance with 3.8.4.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD or in-house contractor personnel these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Decorations and medals covered by this specification are intended to be worn by Government or military personnel to provide tangible evidence of public recognition of personal acts of heroism performed or valuable service rendered.

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6.2 Acquisition requirements. Acquisition documents should specify the following:

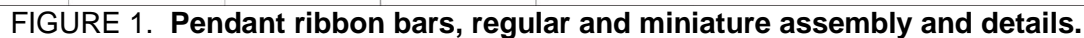
- a. Title, number, and date of this specification.
- b. The title, number, and date of the applicable specification sheet
(See 1.2 and 2.2.1).
- c. When first article is required (see 3.2).
- d. Ribbon required (See 3.4.8).
- e. Type and style service ribbon required (See 3.4.13).
- f. Selection of applicable presentation packaging of decorations and medals
(See 3.9.1 and 3.9.2).
- g. When special marking is required (see 3.11.1).
- h. Packaging requirements (See 5.1)

6.3 Government-loaned property. The contracting officer should arrange to loan the property listed in 3.5

6.4 Subject term (key word) listing.

Acetone
Awards
Enamel, hard
Enamel, soft
Epoxy
Gold
Lacquering
Lead
Medal of Honor
Neck ribbon
Nitric Acid
Plating
Ribbon drapes
Service ribbons
Silver
Soldering

6.7 CHANGES FROM PREVIOUS ISSUE. The margins of this specification are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.



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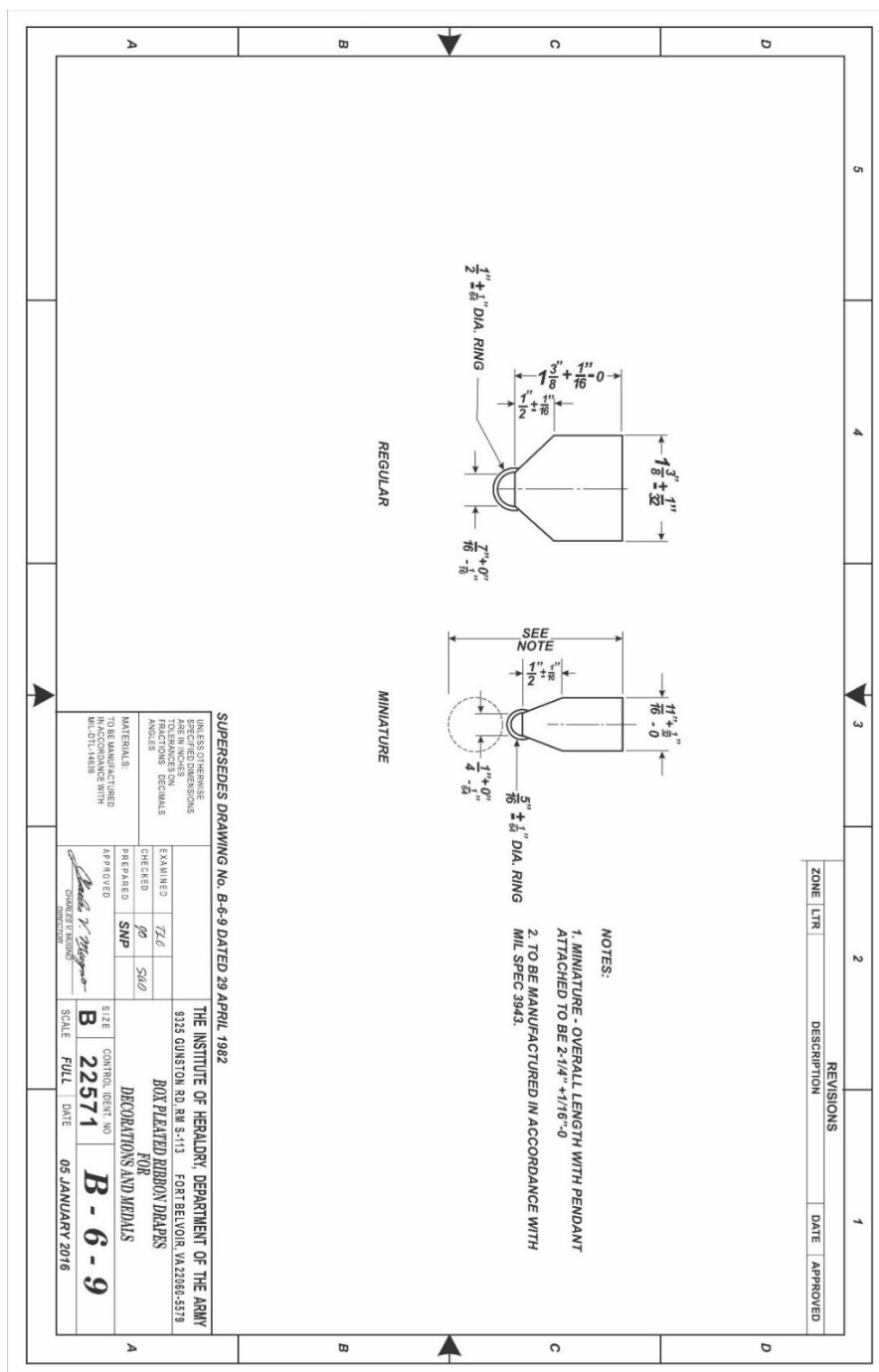


FIGURE 2. Box pleated ribbon drapes for decorations and medals.

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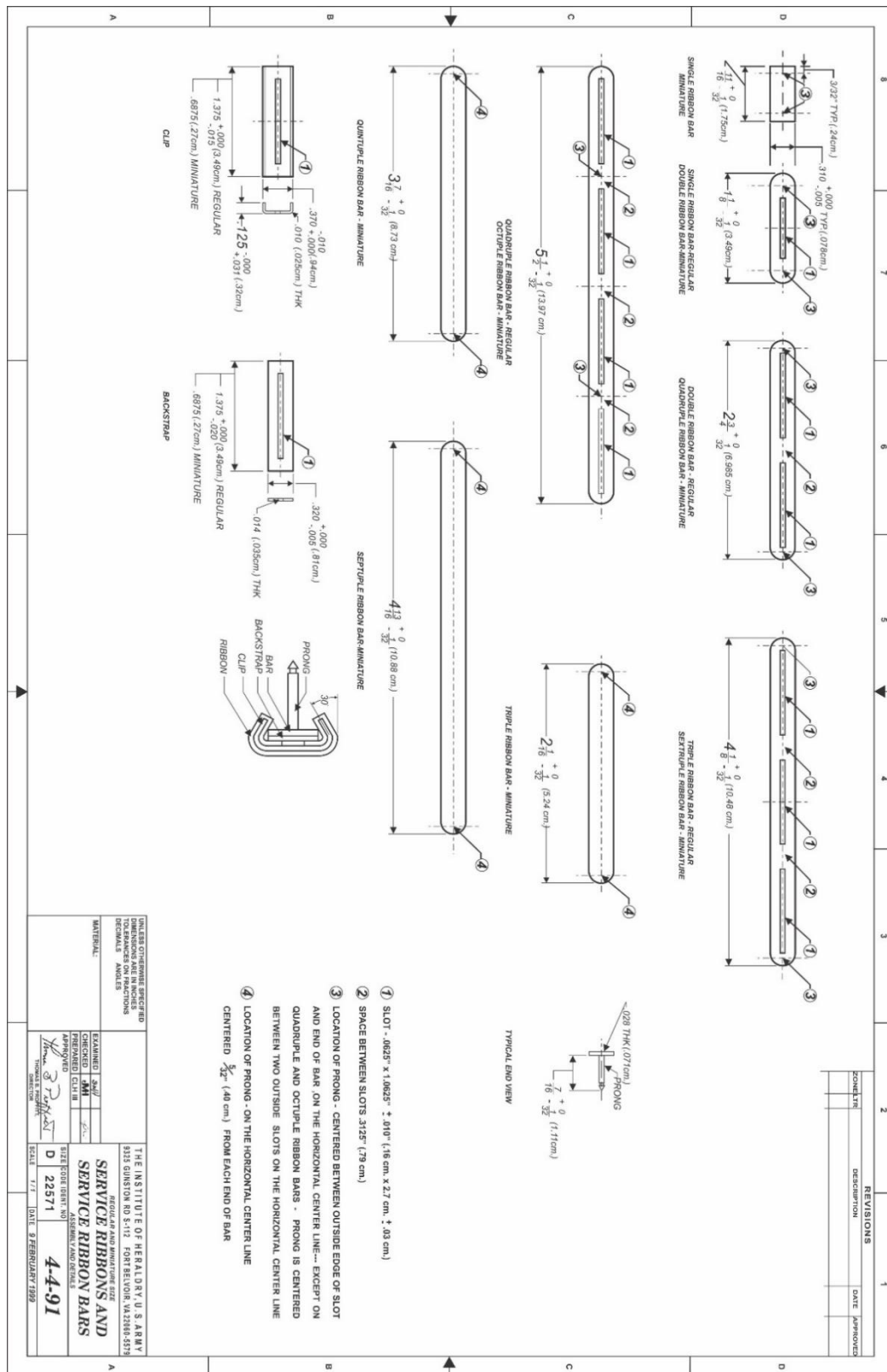


FIGURE 3. Service ribbons and service ribbon bars, assembly and details.

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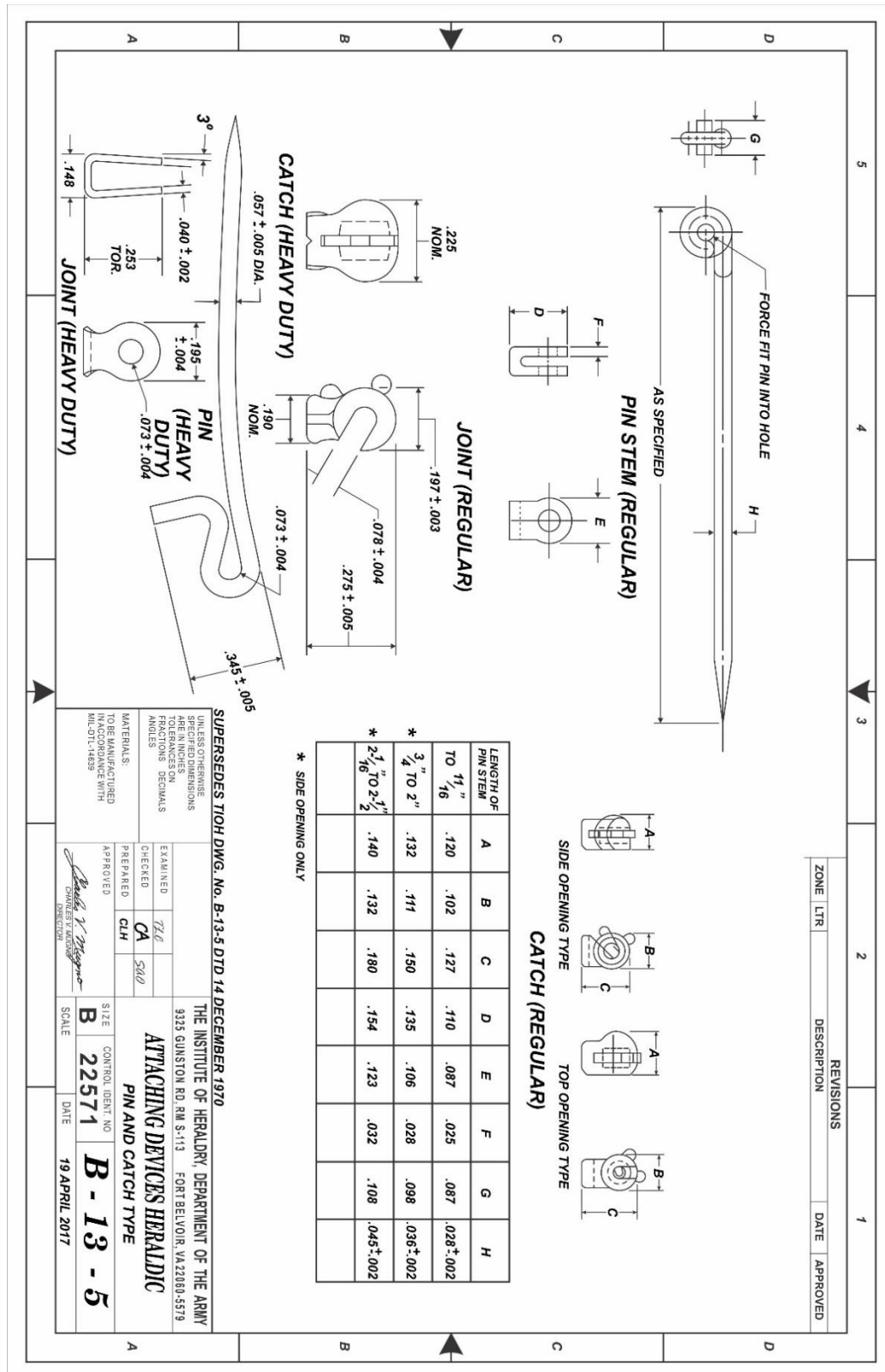


FIGURE 4. Attaching devices heraldic, pin & catch type.

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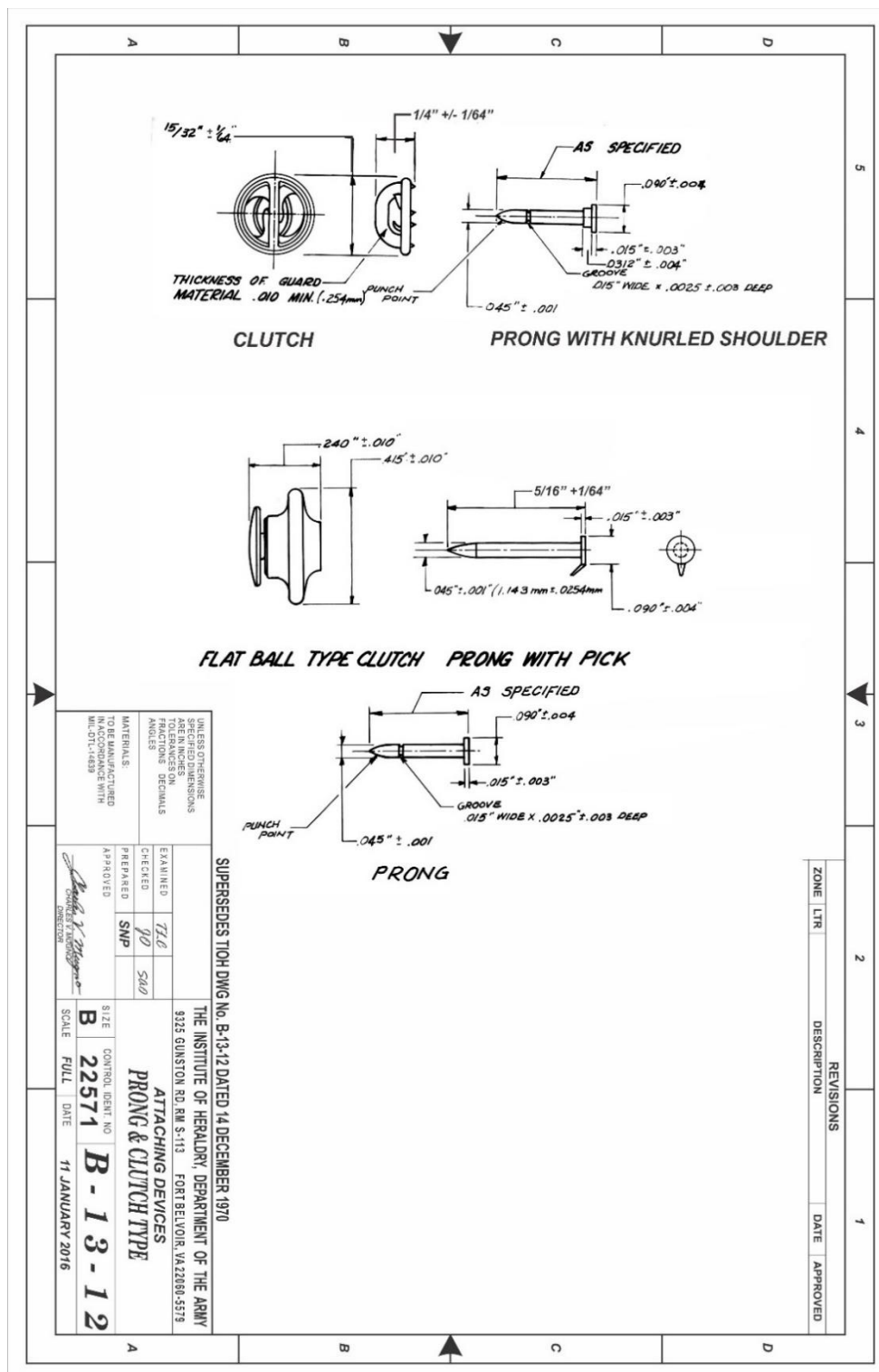


FIGURE 5. Attaching devices heraldic, prong and clutch type.

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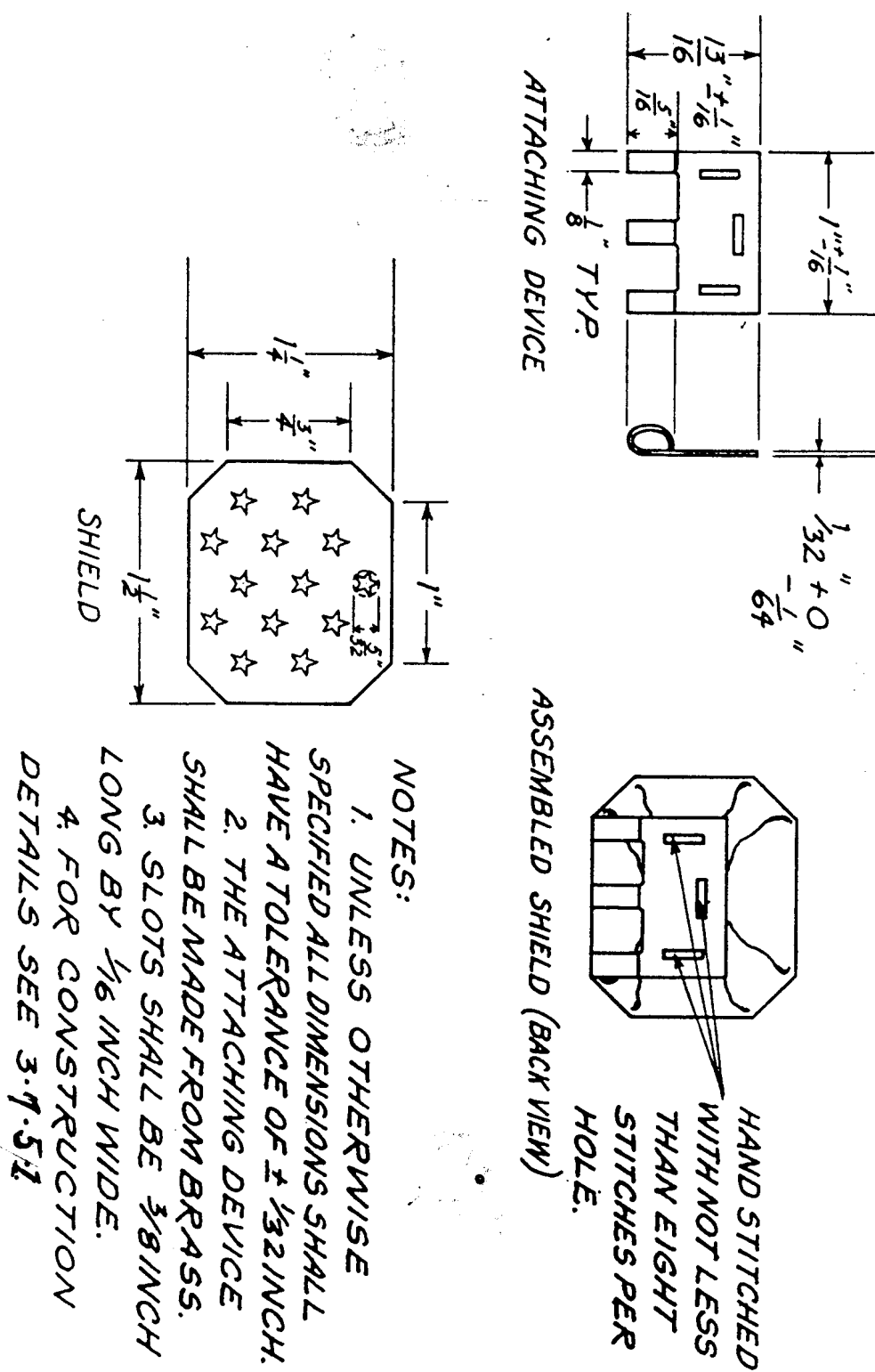


FIGURE 6. Shield and attaching device, Medal of Honor.

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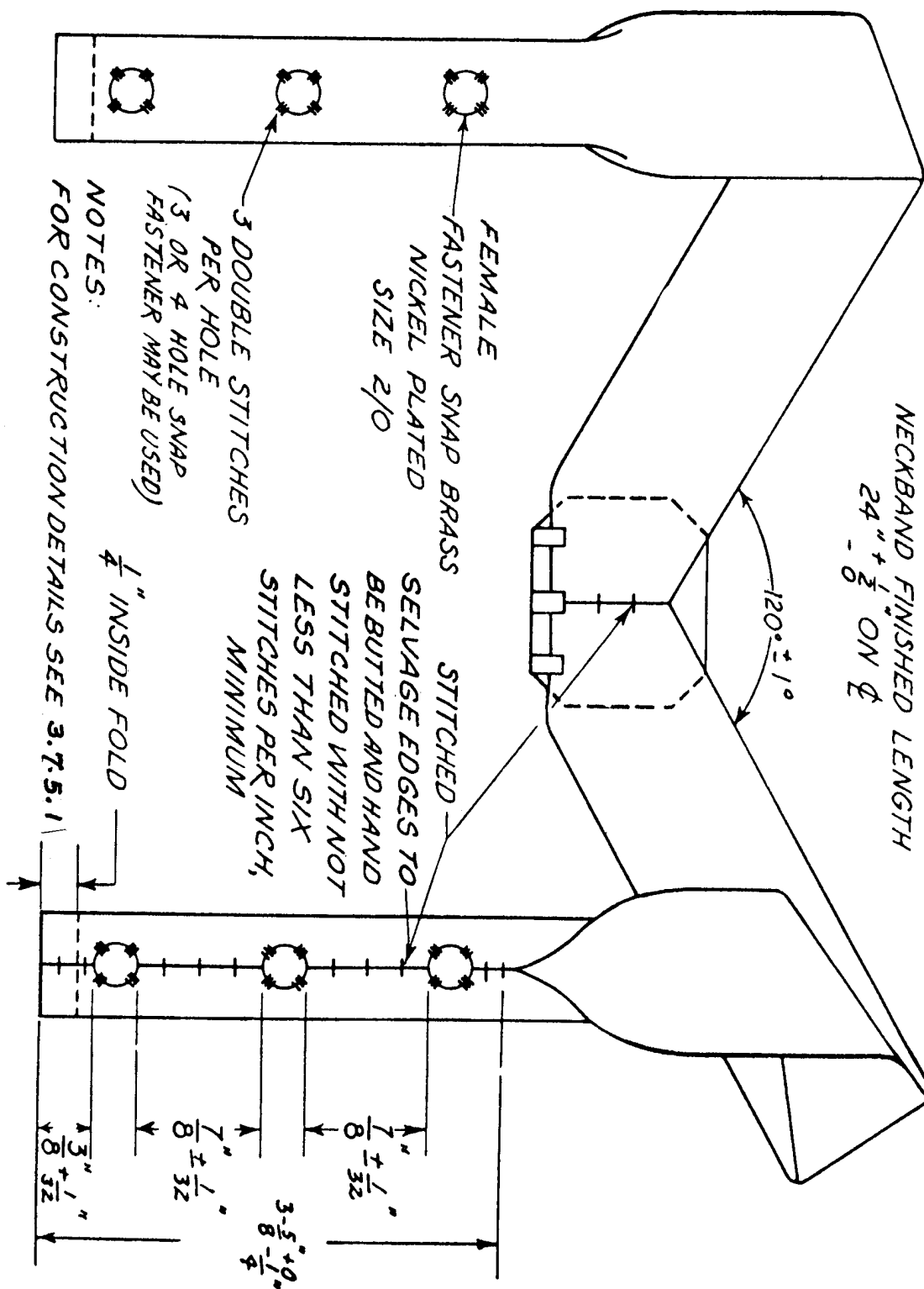
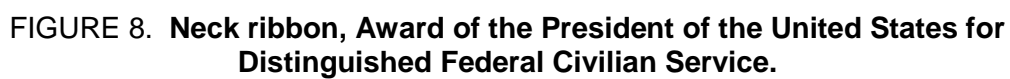


FIGURE 7. Neck ribbon, Medal of Honor.



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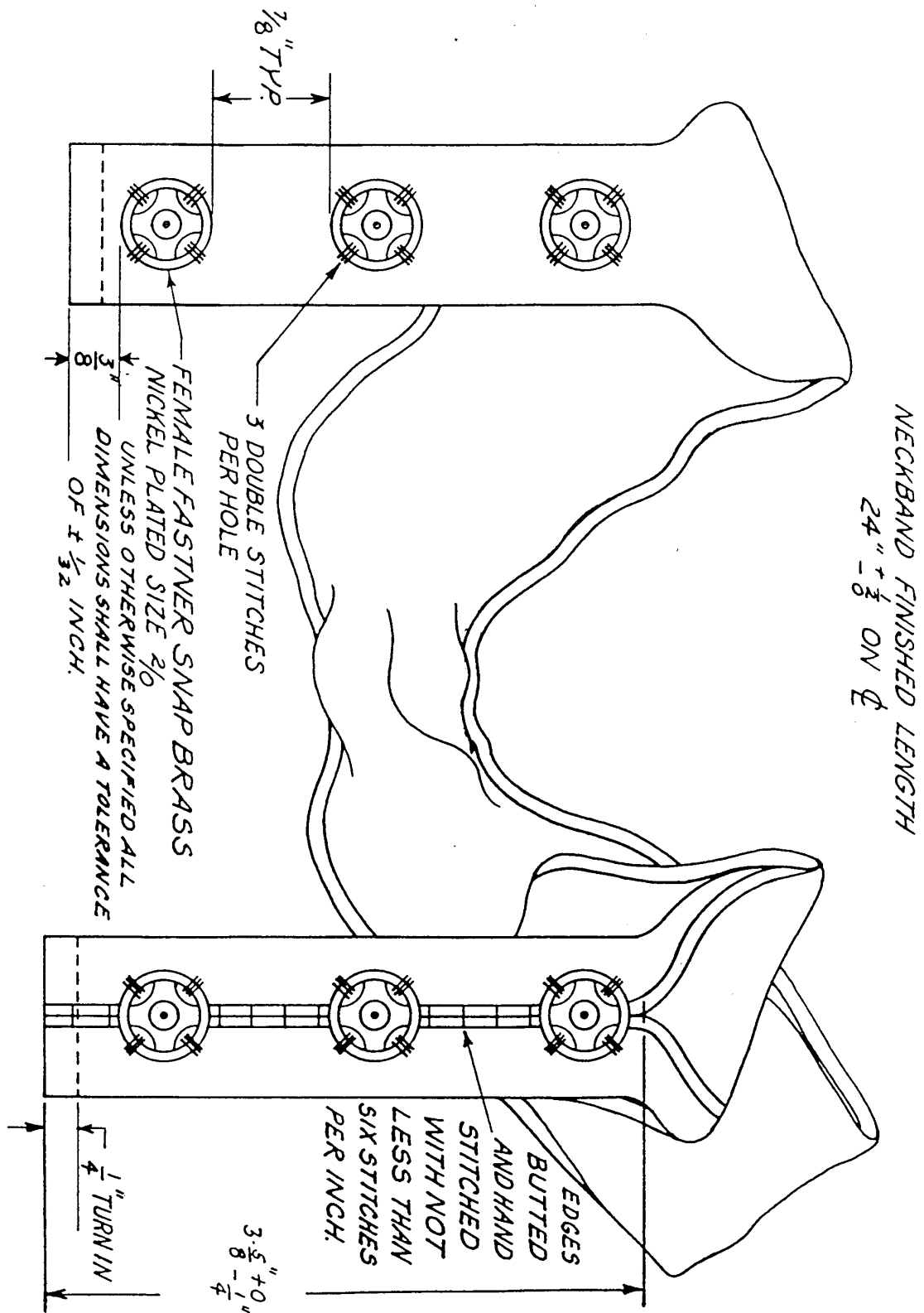


FIGURE 9. Neck ribbon.

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Custodians:

Army - IH
Navy - NU
Air Force - 11

Preparing activity:

Army - IH

Review activities:

Navy - MC, CG1
DLA - CT

(Project No. 8455-2020-465)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <https://assist.dla.mil>.